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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/624,820	07/25/2000	Michael Francis Dube	JJ-124B-R &D	7464

7590

05/02/2002

Grover M. Myers, Law Department Patents
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EXAMINER

WALLS, DIONNE A

ART UNIT	PAPER NUMBER
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1731

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DATE MAILED: 05/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/624,820	Applicant(s) DUBE ET AL.	
	Examiner Dionne A. Walls	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8, 13 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the *Encyclopedia of Food Science Food Technology and Nutrition* ("EFSFTN") in view of Richards (US. Pat. No. 5,454,874).

The EFSFTN discloses that it is known to caramelize glucose, fructose, or starch syrups (corresponding to the claimed "reducing sugar") (page 662, 1st column) in the presence of a sodium hydroxide catalyst (corresponding to the claimed "hydroxide of an alkali metal") (page 662, 2nd column) at elevated temperatures (page 663, 1st column). Such caramel can then be added to tobacco (page 661, 2nd column). While it is not explicitly stated that a smoking article is prepared from this tobacco with caramel additive, it would follow that such a product is ultimately prepared because tobacco is conventionally used as a filler for smoking articles. While the EFSFTN may not specifically state that an *aqueous* mixture of the reducing mixture is subjected to heat treatment during the caramelization process, Richards discloses that reducing sugars may be heated either dry or *with water* (alone or in the presence of a base) during the caramelization process (see col. 1, lines 21- 25). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide an aqueous

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mixture of reducing sugar (and metal hydroxide) to subject to caramelization because this is conventional practice in the art of caramelizing as taught in Richards.

Regarding claims 5-6, the EFSFTN discloses that the temperature range of the heat treatment of the caramelization process of is between 180 – 250 degrees C (corresponding to the claimed heat treatment is conducted at a temperature of at least about 150 degrees C/175 degrees C”) (page 663)

Regarding claim 7, while the EFSFTN does not specifically state that the heat treatment is conducted under a pressure of from about 20 psig to about 500 psig, the EFSFTN does disclose that the caramelization process can be carried out under enhanced pressure (page 663). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to arrive that the claims 20 psig – 500 psig range under which to carry out the process in order to achieve the optimal pressure parameter for the caramelization process.

Regarding claim 8, while the EFSFTN may not disclose that the heat treatment is conducted for a period of at least about 10 minutes, the EFSFTN does disclose that the increase in the color of the caramelized product is proportional to the time of the process (page 663). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to arrive at the claimed 10 minute time period for the heat treatment of caramel based on the amount of color desired for the final caramel product.

Regarding claims 23 and 24, while the EFSFTN does not explicitly state that the hydroxide is present in an amount of less than about 30 weight %, or 0.5 - about 10

weight %, of a water-free basis, the EFSFTN does state that the hydroxide serves to influence the flavor and the tinctorial strength of the caramel (page 662, 1st column). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to arrive at the claimed amount of hydroxide in order to achieve an optimal tint or flavor of caramel to be added to the smoking article.

3. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the *Encyclopedia of Food Science Food Technology and Nutrition* ("EFSFTN") in view of Richards (US. Pat. No. 5,454,874) as applied to claim 1 above, and further in view of Hedge (US. Pat. No. 4,109,664).

While the EFSFTN modified by Richards may not state that the caramel composition is applied at an amount of from about 5% to about 8% by weight based on the total dry weight of the tobacco leaf or cut filler in the smoking article, Hedge discloses adding caramel to cut tobacco wherein the weight percentage of caramel ranges from 2 – 20 % (see col. 2, lines 40-62. Note: This percentage is based on the weight of the substitute composition of the Hedge invention. However, said composition can be added to a cut tobacco filler whose proportion can be as low as 1%, which would still result in a caramel weight percentage, based on the total weight of the filler, within the claimed range). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to apply the caramel of the EFSFTN modified by Richards in the amount taught in Hedge in order to appreciate the full advantages of caramel in cut tobacco filler of a smoking product.

4. Claims 10-11, 14-22 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the *Encyclopedia of Food Science Food Technology and Nutrition* ("EFSFTN").

The EFSFTN discloses that it is known to caramelize glucose, fructose, or starch syrups (corresponding to the claimed "reducing sugar"/"high fructose corn syrup") (page 662, 1st column) in the presence of a sodium hydroxide catalyst (corresponding to the claimed "hydroxide of an alkali metal") (page 662, 2nd column) at elevated temperatures (page 663, 1st column). Such caramel can then be added to tobacco (page 661, 2nd column). While it is not explicitly stated that a smoking article is prepared from this tobacco with caramel additive, it would follow that such a product is ultimately prepared because tobacco is conventionally used as a filler to smoking articles.

Regarding claims 11 and 18, the EFSFTN discloses that the temperature range of the heat treatment of the caramelization process is between 180 – 250 degrees C (corresponding to the claimed heat treatment is conducted at a temperature of at least about 150 degrees C/175 degrees C").

Regarding claim 19, while the EFSFTN does not specifically state that the heat treatment is conducted under a pressure of from about 20 psig to about 500 psig, the EFSFTN does disclose that the caramelization process can be carried out under enhanced pressure (page 663). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to arrive that the claims 20 psig – 500 psig range under which to carry out the process in order to achieve the optimal pressure parameter for the caramelization process.

Regarding claim 8, while the EFSFTN may not disclose that the heat treatment is conducted for a period of at least about 10 minutes, the EFSFTN does disclose that the increase in the color of the caramelized product is proportional to the time of the process (page 663). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to arrive at the claimed 10 minute time period for the heat treatment of caramel based on the amount of color desired for the final caramel product.

Regarding claims 21, 22, 25 and 26, while the EFSFTN does not explicitly state that the hydroxide is present in an amount of less than about 30 weight %, or 0.5 - about 10 weight %, on a water-free basis, the EFSFTN does state that the hydroxide serves to influence the flavor and the tinctorial strength of the caramel (page 662, 1st column). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to arrive at the claimed amount of hydroxide in order to achieve an optimal tint or flavor of caramel to be added to the smoking article.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the *Encyclopedia of Food Science Food Technology and Nutrition* ("EFSFTN") in view of Hedge (US. Pat. No. 4,109,664).

While the EFSFTN modified by Richards may not state that the caramel composition is applied at an amount of from about 5% to about 8% by weight based on the total dry weight of the tobacco leaf or cut filler in the smoking article, Hedge discloses adding caramel to cut tobacco wherein the weight percentage of caramel ranges from 2 – 20 % (see col. 2, lines 40-62. Note: This percentage is based on the

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weight of the substitute composition of the Hedge invention. However, said composition can be added to a cut tobacco filler whose proportion can be as low as 1%, which would still result in a caramel weight percentage, based on the total weight of the filler, within the claimed range). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to apply the caramel of the EFSFTN modified by Richards at the amount taught in Hedge in order to appreciate the full advantages of caramel in cut tobacco filler of a smoking product.

Response to Arguments

6. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

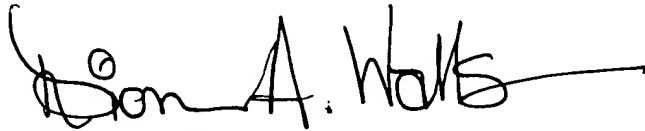
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne A. Walls whose telephone number is (703) 305-0933. The examiner can normally be reached on Mon-Fri, 7AM - 4:30PM (Every other Friday off).

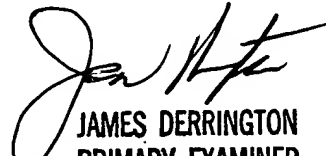
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.



Dionne A. Walls
April 29, 2002



JAMES DERRINGTON
PRIMARY EXAMINER
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